

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1-9. (Cancelled)
10. (New) A system for illuminating viruses in blood comprising a pump and a light source.
11. (New) The system of claim 10, wherein the pump mixes plasma and a photosensitizer.
12. (New) The system of claim 10, wherein the light source is an illumination device.
13. (New) The system of claim 12, wherein the pump transfers the plasma-photosensitizer mixture into the illumination device.
14. (New) The system of claim 12, wherein the illumination device includes a vessel for housing the plasma-photosensitizer mixture during illumination.
15. (New) The system of claim 11, further comprising a removing device for removing the photosensitizer from the plasma.
16. (New) The system of claim 15, wherein the removing device includes an inlet for receiving the plasma-photosensitizer mixture and an outlet.
17. (New) The system of claim 14, wherein the illumination device further includes a supporting plate for supporting the vessel, at least one illuminating plate attached to the top of the supporting plate, and at least one illuminating plate attached to the bottom of the supporting plate.
18. (New) The system of claim 12, wherein the illumination device further includes a fan.
19. (New) The system of claim 17, wherein the at least one illuminating plate attached to the top of the supporting plate is attached to at least one heat sink plate, and the at least one illuminating plate attached to the bottom of the supporting plate is attached to at least one heat sink plate.
20. (New) The system of claim 17, further comprising a stepping motor at one end of the supporting plate for stabilizing the supporting plate.

21. (New) The system of claim 14, wherein the vessel is a plasma bag having a tube at each end and a five-pressed folded line in the middle.
22. (New) The system of claim 10, wherein the pump is a peristaltic pump.
23. (New) The system of claim 15, wherein the removing device is a filter.
24. (New) The system of claim 23, wherein the filter includes attapulgate or cross-linked agar beads comprising attapulgate clay.
25. (New) The system of claim 16, wherein the outlet is connected to a blood bag, blood storage device, or a patient.
26. (New) The system of claim 14, wherein the vessel is sterile and a disposable sealed system.
27. (New) The system of claim 26, wherein the vessel is isolated from the outside environment.
28. (New) The system of claim 10, further comprising a device for separating plasma from blood cells.
29. (New) The system of claim 10, further comprising a luminometer.
30. (New) A method for illuminating viruses in blood, comprising adding an anticoagulant into whole blood; separating the plasma from the blood cells; mixing photosensitizer methylene blue with the plasma to enable an interaction between the photosensitizer methylene blue and at least one virus in the plasma, and illuminating the photosensitizer methylene blue-plasma mixture.
31. (New) The method of claim 30, further comprising filtering the photosensitizer methylene blue-plasma mixture to remove viruses bound to the photosensitizer methylene blue.
32. (New) The method of claim 31, further comprising transfusing the filtered plasma into the blood of a patient.
33. (New) The method of claim 31, further comprising mixing the filtered plasma with the separated blood cells to reconstitute whole blood and transfusing the whole blood into the blood of a patient.

34. (New) The method of claim 31, wherein the filtering is carried out by passing the photosensitizer methylene blue-plasma mixture through a filter comprising an absorbent.
35. (New) The method of claim 33, wherein the absorbent is attapulgate or cross-linked agar beads comprising attapulgate clay.
36. (New) The method of claim 30, wherein the whole blood is obtained from a blood station, blood bank, blood bag, blood storage device, or freshly isolated from a patient.
37. (New) The method of claim 30, wherein the virus is hepatitis B virus, hepatitis C virus, human immunodeficiency virus, SARS-associated coronavirus, vesicular stomatitis virus, or Sindbis virus.
38. (New) The method of claim 31, wherein 99.99% of the viruses in the blood are removed.